least 1973,³ but there is no evidence that many have taken up the challenge.

Such tests at school entry may help, but almost certainly have to be repeated at intervals to ensure that all affected children have indeed been identified and to assess the progress of those who have been. As Bax and Whitmore point out,⁴ much can be done to help children with specific learning disabilities with the skills of special teachers, speech therapists, physiotherapists, and occupational therapists—but not until they have been identified. Initially, for example at school entry, it is not necessary to label those children with minor degrees of disability, but to alert the teacher to the possibility of a child having difficulties, and asking for a referral if this does happen. Those working in this field are likely to be well aware of the unhappiness and emotional complications that can ensue if learning difficulties are not identified, and the effect these have on the child and often on the family as well. These disturbances can be just as profound as those resulting from missing more obvious physical disabilities.

The argument that children with developmental disorders can be identified by various individuals rather than by surveillance can adversely affect some children at particular risk, including inner city children, those from single parent families, and those from ethnic minorities. Unfortunately not all parents are observant or particularly interested in their child's progress at school, and teachers have many problems these days, not least the deficiencies of staffing and constant changes in staff. A survey is being carried out in Macclesfield infant and primary schools to find out teachers' views on the school entry examination, and it is hoped to publish this at a later date, but it is already apparent that teachers welcome any information on factors that may interfere with a child's progress in class.

The comment by Colver that it is better to concentrate on examining all children rather than those who happen to come to the clinic is not clear.⁵ How can *all* children be included when experience suggests that this is impossible, especially for those most in need.

There can be no controversy about the need for more research into the value of procedures employed to identify developmental disorders and into ways of helping affected children. Until more information is available, however, it does not seem justifiable to suggest abolishing such routine tests and risking making the lot of these children even worse than it is at present. Rather should the evidence of the need for change be produced first of all. Bax and Whitmore⁴ quote Drillean and Drummond who suggest that there are many unidentified children who need help. It may be that when all those involved are better trained routine surveillance will not be needed, but that is many years ahead and until then it should not be abolished. Leaving such surveillance to be done in a very unstructured way when the child is being seen for some other reason seems very inadequate for such an important matter. Emphasis should be on identifying children at risk so that they are not blamed for lack of effort when they have a real disability, and so that they can be given help and understanding. Methods should be constantly evaluated and reviewed, but lack of proof of efficacy is not an excuse for doing nothing.

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Marrow aspiration from small infants

SIR,—Obtaining adequate marrow aspirates from very small infants is complicated by the lack of a suitable small aspiration needle. The most cellular marrow is obtained from the posterior iliac crest and for this the infant can be securely held in the lumbar puncture position by a single assistant. Because of the small size of the newborn ilium, the recommended aspiration site for children under 1 year old is from the tibia,¹ but in inexperienced hands this site may fail to yield an adequate sample. The standard paediatric Sala needle is too large to enter easily the marrow space of the infant posterior iliac crest and its size and weight make it cumbersome when aspirating from the tibia. Short lumbar puncture needles are an alternative for aspirating from either site, but they lack rigidity and tend to become blocked by bone fragments.

I have recently found that Becton Dickinson 'No-Kor Admix' needles provide an ideal alternative. The needle (available in 18 and 16 gauge) is designed to penetrate the rubber bung when reconstituting vials of lyophilised pharmaceuticals. It has a scalpel point slightly wider than the rigid shaft, which allows easy penetration and prevents a core of rubber (or bone) from entering the side facing orifice.

The 18 gauge, 1.5" needle pictured allows reliable and easy aspiration of cellular marrow particles from the posterior iliac crest of the smallest infants.

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Cutting point and side facing orifice of an 18 gauge 'No-Kor Admix' needle (magnified $\times 12$).

Cryptosporidiosis and acute leukaemia

SIR,—Drs Foot, Oakhill, and Mott describe the difficulty in managing leukaemic children who have intestinal cryptosporidiosis as a complication.¹ I would like to report a case of a child suffering from a severe immunological defect whose intestinal cryptosporidiosis appeared to respond favourably to treatment with pooled bovine colostrum and a commercially available oral immunoglobulin preparation. I believe that such treatment may prove useful in the management of children with a variety of immunological deficits complicated by intestinal cryptosporidiosis.

Case report

A white boy, aged 3.3 years, presented with a two year history of poor weight gain and persistent diarrhoea. He was passing watery stools up to 15 times daily, vomiting several times daily, and was anorectic. There was no personal history of respiratory infections nor family history of any immunological deficit or recurrent infections. On examination his weight was 9.18 kg (2 kg below the 3rd percentile) and height 87 cm (2 cm below the 3rd percentile). There was considerable buttock wasting and abdominal distention, but no organomegaly. On investigation his haemoglobin concentration was 99 g/l and leucocytes $11.8 \times 10^9/l$ with normal differential count; serum IgG concentration was 9.6 g/l and IgM 1.3 g/l. IgA concentrations in serum and duodenal and nasopharyngeal aspirates were undetectable. B cell responses to pokeweed mitogen were normal but there were very diminished responses to phytohaemagglutinins, Con A and OKT 3, which were compatible with a T cell function defect. His T4/T8 ratio was normal, as were complement concentrations, HIV screen, and natural killer assay. A normal thymic shadow was present on chest radiography. A duodenal biopsy specimen showed normal villus architecture, but infiltration with extensive intracellular and intraluminal cryptosporidia; he was also noted to have severe oesophageal candidiasis. A cervical lymph node biopsy specimen showed normal architecture with reactive hyperplasia. Numerous oocysts of cryptosporidia were recovered from stools.

He was treated with oral spiramycin and nystatin but remained unwell with severe diarrhoea. After two weeks he received oral nystatin and also pooled bovine colostrum 100 ml three times a day in the form of a milk shake. The colostrum was obtained within 12 hours of calving and was pasteurised at 57°C for 10 minutes before being deep frozen in one litre aliquots. Each donation was tested for leucocyte concentration and coliform count. Within two weeks there was a noticeable improvement. The vomiting ceased and stool frequency diminished to once daily. He also started to gain weight. He remained well for seven months receiving colostrum treatment alone. During this time cryptosporidia oocysts were recovered from the stools on one occasion only, testing being performed weekly, on average. At six months logistical problems with the supply of colostrum mounted, and therefore he was started on a preparation of active immunoglobulins, commercially available for use as animal feed. This preparation is promoted for the prevention of diarrhoeal diseases, including cryptosporidiosis, in newborn farm animals. Unfortunately, he received this for only four months, at which time he became increasingly reluctant to drink the

immunoglobulin preparation. His weight remained static, and the diarrhoea increased in frequency to twice or three times daily. A biopsy specimen once more demonstrated infiltration with cryptosporidia, but no oocysts were detected in the stools. The immunoglobulin treatment was discontinued after four months, when total parenteral nutrition began. No adverse affects had been noted.

Bovine colostrum is a very rich source of immunoglobulins and contains 40 g/l of IgG₁ which is the principal secretory immunoglobulin in cattle and it is resistant to proteolysis and low pH. It also contains 4.0 g/l of IgA,² whereas human colostrum contains only 3.6 g/l of IgA.³ The commercial immunoglobulin was diluted to a strength of 35 g/l of IgG₁.

Tzipori *et al* reported a case of a child with congenital hypogammaglobulinaemia and cryptosporidiosis who responded to treatment with colostrum obtained from a cow that had been previously immunised with cryptosporidia antigens in order to produce a hyper-immune colostrum.⁴ I suggest that pooled colostrum from non-immunised cows may provide an equally effective, but far simpler and cheaper, method of controlling symptoms due to cryptosporidiosis in immunodeficient patients (P Heaton, paper given at 6th Asian Paediatric Congress, Tokyo, 1988). Immunoglobulin concentrates may also provide an effective, more convenient, and controlled method by which such enteral immunotherapy can be administered. Further study is warranted.

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Lask of the Hospital for Sick Children, Great Ormond Street, and Abe Fosson from the University of Kentucky have joined transatlantic (and transcultural) hands to put together a paperback which is by far the best guide to this labyrinth that I have come across. Plato would be approved.

No one should underestimate the complexity of dealing with child, family, school and society, organic illness, behavioural manifestations, and emotional disorder all rolled up into one child. This volume does a neat unravelling job on this everyday conundrum for those who undertake outpatient clinics.

Mind you, like many who get involved in psychiatry it clears its throat several times before venturing an opinion. Plato might have been a little impatient not only with two forewords but also a preface and a prologue not to mention an epilogue. Once into its stride, however, it deals at an exhilarating pace with definitions of psychiatric terms and the nature of symptoms as markers of stress and distress. Chapter 3 is a brief guide to a number of specific conditions with a major psychosomatic component and later there is a description of the networks which surround the sick child—introduced, incidentally, with a child psychiatric interpretation of Humpty Dumpty's traumatic event (did he fall or was he pushed?).

The second half deals with an integrated approach to treatment and introductions to methods of behavioural, family, and individual therapy.

It's written with a deft touch, engaging humour and—leaving aside the 'Stateside' preface—a singular lack of jargon. Apart from a rather weak and over simplified last chapter, which is a potted guide to medication, it is a winner. Not just for libraries as at a mere £11.95 (paperback) it is essential reading for every general practitioner trainee and paediatrician of whatever seniority, if only to remind them that—to paraphrase the authors' words—children talk with their bodies.

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A Colour Atlas of Brain Disorders in the Newborn. By L S de Vries, L M S Dubowitz, V Dubowitz, J M Pennock. (Pp 199; £50.00 hardback.) Wolfe Medical Publications Ltd, 1990. ISBN 0-7234-4542-9.

Colour atlases, like the colour supplements of some weekend newspapers, can be so lavishly illustrated that the text is overlooked. In this case the real value would be underestimated. This new volume from Linda de Vries and her colleagues is not a text of neonatal neurology but a systematic presentation of the various imaging techniques accompanied by profuse clinical photographs.

The book is notable for the illustrations of magnetic resonance imaging (MRI) of the brain. After a brief introduction which covers clinical examination, electrophysiological measurements, and ultrasound scanning, there follows a chapter that details the principles of MRI. The importance of this book lies to some extent in the comparison that is made between the appearances on MRI and those of ultrasound and computed tomography. How useful this becomes will depend to some extent on the availability of MRI and further work that defines the optimal timing as well as the benefits of this new technique.

The remainder of the book consists of over 50 case reports, which detail the clinical presentation, examination, and investigation of preterm and term babies with common, and some not so common, disorders that are the concern of all who look after the newborn. As the authors emphasise no single investigation is sufficient to make a diagnosis nor a prediction of outcome. Those, like ultrasound, remain pre-eminent at the cot side, while new information, particularly about myelination of the brain is revealed by MRI. A particular strength of the text is the emphasis placed on the remarkably good outcome that can occur after a certain degree of brain damage, particularly after periventricular haemorrhage. The importance of distinguishing ischaemic lesions from the aftermath of haemorrhage is covered extensively. In addition to hypoxic ischaemic encephalopathy there are chapters that cover less common lesions such as cerebral artery occlusion and the increasing recognition that some of the insults that the brain sustains are of antenatal origin. The book ends with a special glossary of MRI terminology.

In a field that is advancing so rapidly this book brings together in a condensed format investigations and clinical correlates with a clarity that will be widely appreciated. I should emphasise that most will be gained by reading from the first page to the last, however, while avoiding the temptation to let the excellent illustrations detract from the text. In any case the chapter on MRI will be compulsory if not compulsive reading. This book should find a place in every neonatal unit where nurses, resident doctors, as well as the physiotherapist and social worker, will find explanation as well as illustration of the problems they are dealing with on a daily basis. However the temptation to find a case report here which fits with that of a patient must be avoided.

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Fetal and Neonatal Cardiology. Edited by Walker A Long. (Pp 863; £140 hardback.) W B Saunders Company (Harcourt Brace Jovanovich Inc), 1990. ISBN 0-7216-1887-1.

Over the past 10 years tremendous advances have been made in the diagnosis and treatment of congenital heart disease in the neonate and more recently the fetus. Transcatheter treatment of neonates with an increasing number of lesions is now becoming commonplace, and we have recently seen that fetal intervention is also a practical possibility. These are exciting times, and undoubtedly a sufficient body of knowledge has accumulated to justify a textbook of this kind.

This volume is divided into three parts. The first deals with the basic sciences of cardiovascular development, structure, and function. Part 2 concerns prenatal cardiology, and the final part covers cardiology of the neonate. This segment is divided into sections on diagnostic modalities, cardiovascular disorders of the preterm and of the term neonate, and a last section concerning therapeutic modalities. This includes chapters on: neonatal catheter palliations, cardiac surgery, anaesthesia, and postoperative care of the sick neonate with congenital heart disease. The 78 contributors to these 68 chapters are mainly of North American origin, and though introduced

BOOK REVIEWS

Childhood Illness: the Psychosomatic Approach. By Bryan Lask and Abe Fosson. (Pp 156; £11.95 paperback.) John Wiley and Sons Ltd, 1989. ISBN 0-471-91822-9.

The authors quote Plato (320BC)—'this is the greatest error of our day, that physicians separate the mind from the body'. It's a pretty universal error 2300 years later and Bryan